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Do Not Remove

Frozen Concentrates in the Florida Citrus Industry

After only three years of commercial production, frozen citrus concentrate has become the most sensational development in food processing. It is providing consumers with a new and useful product and promises far-reaching changes in the Florida citrus industry. Like most new products, it is not the result of a particular event or circumstance, but is an outgrowth of forces outside as well as within the citrus industry. This product, which makes it possible for the housewife to prepare, in a matter of seconds, one and a half pints or more of citrus juice comparable to fresh juice, is part of a national tendency toward more conveniences in day-to-day living.

Last year United States consumers spent 35.5 billion dollars for farm food products, of which nearly 18 billion was for marketing charges. That the proportion is so large is mainly attributable to the apparently insatiable demand by consumers for the more elaborately processed and packaged food products and for out-of-season food. Foods that used to be accessible only in certain seasons are now available the year around because of the development of production in warmer areas and advancements in refrigeration and transportation. As the population has become more urbanized, less food processing and preparation is being done in the home. One of the most striking examples of this trend toward less food processing in the home is the growth of the canning industry. Recent development of successful commercial processes for frozen foods has given further impetus to the transfer of food processing from the home to the factory.

These changes have also had a marked impact upon the citrus industry, particularly during the past fifteen years. Before the 1934-35 season, not more than 10 percent of the citrus crop was ever processed. Since then the proportion of the total crop sold in processed form has increased steadily until in the 1947-48 season 42 percent of the country's citrus crop was sold in cans.

Technological improvements in other food processing industries have stimulated the processing of citrus. Flash pasteurization, for example, provides the rapid destruction of bacteria that is required to produce a high-quality canned citrus juice. High-vacuum concentration, a process widely used in other industries, has become a vital part of the citrus processing industry.

Processing has expanded so much more rapidly in Florida than in the other citrus producing regions that today that state dominates the processing field. This expansion is partly attributable to the rapid increase in production. When processing first began, it was only a means of using fruit that could not be sold at a profit on the fresh market or that was of unsuitable quality for that market. As production increased and it became more difficult to sell all of an unusually large citrus crop as fresh fruit, processing became a fairly effective means of removing excess supplies from the fresh market and thereby of stabilizing prices. Since production has come to exceed the average annual requirements of the fresh market, however, processing has become one of the primary markets, but the price of fruit has tended to fluctuate widely. The mere existence of a large processing industry was no guarantee against widely fluctuating prices.

Early in the postwar period it became apparent that, if effective price stabilization was to be achieved, the Florida citrus industry must either find a new outlet for citrus or undertake to control the supply entering both the processing and the fresh market. It was under these circumstances that the frozen concentrate industry developed and it, therefore, has possibilities of becoming more than a mere addition to the present processing industry. It may provide an opportunity, along with some other measures, for citrus growing to become more profitable.

Processing of Single-Strength Juices

The potentialities of the frozen concentrate industry can best be realized by considering some of the reasons for the failure of the single-strength juice industry to provide a profitable market for the grower. From 1931 to 1947, Florida orange production increased from 12 million boxes to 58 million. In 1931-32 virtually all oranges were sold fresh, but in the 1947-48 season over half were sold in processed form. Grapefruit production increased from 12 million boxes in 1932-33 to 29 million in 1947-48 with essentially all of the increase going into the processing market. In order to market this steadily increasing volume of processed citrus at prices profitable to the grower, the single-strength juice industry needed to use modern merchandising methods, including effective advertising and sales promotion, and to produce a uniformly high-quality juice that could be sold at fairly stable prices.

That these requirements were not fully met is probably more because of the business structure of the single-strength juice industry rather than the lack of effort upon the part of individuals within the industry. Compared to most food processing operations, small amounts of capital are required for packing single-strength juice. As a result, many firms and individuals entered the field and excess productive capacity was soon created. In the struggle to earn a profit, some firms packed juice of such poor quality that it hindered an expan-

sion of the market. In a recent survey, wholesale distributors placed improved quality at the top of the list of measures that would expand the market for processed citrus.

Violent price fluctuations have been characteristic of the processed citrus market. Independent processors, in attempting to sustain their individual plant volume, often paid higher prices for fruit than seemed justifiable in the light of probable future market conditions. The result was an accumulation of juice inventories and a large carry-over into the succeeding season. In October of 1947, for example, about 10 million cases of Florida citrus products were left over from the previous season. In order to move these inventories, large price reductions were necessary. This erratic price structure makes wholesalers reluctant to carry sufficient stocks to supply the market at all times. Rapid rises in retail prices also cause consumers to turn to other products. Large reductions in retail prices are then necessary to regain these customers.

Cooperatively-owned and grower-owned processing companies looked upon the processed market primarily as a means of selling their fruit and not from the standpoint of earning returns upon the investment in plant facilities. Fruit that could not be sold at a profit in the fresh market was usually canned regardless of the outlook for the price of processed citrus. As a result the quantity processed depended almost entirely on the size of the crop and on the amount required for the fresh market.

Effective sales promotion and advertising have been difficult in the single-strength juice industry. The Florida Citrus Commission uses the proceeds from a tax on each box of citrus to conduct nation-wide advertising and sales promotion programs for fresh as well as processed fruit. These programs have been handicapped, however, by the presence of low-quality juices on the market, by major changes in retail prices of canned citrus, and by failure to keep adequate quantities available to consumers at all times. Most processors are too small to maintain their own sales organizations and must, therefore, depend upon regular food distributors and handlers to sell their product. In 1947, for example, about half of the canned citrus juice was sold under buyers' labels.

During the war the weaknesses in the processing industry were more than offset by the unusual demand for citrus fruit created by shortages of competing fruits and by Government purchases. For the 1945-46 season, Florida growers received a price equivalent to $2.36 a box on the tree for the oranges used by processors. The price dropped to 45 cents in the 1946-47 season and increased to only 51 cents during the 1947-48 season. On-the-tree prices for grapefruit used for processing averaged only 13 cents a box in the 1947-48 season. These prices are not high enough to cover production costs for most groves. The Florida Agricultural Extension Service conducted a study of costs and returns on 252 groves for a seventeen-year period and the 1947-48 season was found to be the first in which average costs exceeded returns on all types of groves studied. In that season two-thirds of the groves failed to pay operating costs.

The dissatisfaction of growers with postwar prices for processed as well as for fresh fruit led to the organization of the Florida Citrus Mutual, a growers' cooperative marketing organization, whose members grow practically all commercial citrus. One of Mutual's first steps during the current season was to establish minimum prices at which its members were permitted to sell fruit to processors. That prices paid by processors have stayed above the minimum established by Mutual is partly because of the effect of the frozen concentrate industry upon the demand for citrus.

History of the Process

Although single-strength citrus juices have long been a widely acceptable food product, they have some disadvantages which have been under constant study by persons within the industry and by Federal and state research agencies. The frozen concentrate process is partly the result of efforts to overcome these disadvantages.

Citrus juice that is preserved by the ordinary canning process must be pasteurized to prevent the growth of undesirable bacteria. The heat used in the pasteurization process causes canned juice to have a flavor characteristically different from fresh juice. The same thing is true, to a greater or lesser degree, for nearly all canned fruits and vegetables, but it apparently has had a more adverse effect upon consumer acceptance of citrus juices than it has had upon other canned juices.

Another disadvantage is the change in flavor and appearance that occurs when citrus, preserved by the conventional canning process, is stored too long or at high temperatures. Even though pasteurization kills nearly all of the bacteria, color and flavor changes continue because of the action of enzymes naturally present in the fruit. If canned juice is held longer than a year, the changes in flavor and color are often so pronounced as to affect consumer acceptance. In recent years, when large carry-overs of juice were common, this characteristic undoubtedly was the cause of many of the complaints about poor-quality juice.

Single-strength juice also lacks uniformity of color and taste. This is the result of using different varieties or of differences in quality within a variety arising from degree of maturity, location of the grove, or the weather. Some of these differences appear in the canned product despite the most careful processing and skillful blending. One important variable is the solids content. This may vary from 7 to 15 percent in the case of orange juice. Another is the ratio of natural fruit sugar content to acid. Marked departures from the average for either of these measures may cause the juice to taste watery, sour, or insipid.

Quick freezing of single-strength juice and fruit was one of the first methods used in an attempt to overcome these disadvantages. For several years before the war small quantities of this product were made in California. However, it was never entirely satisfactory from a commercial standpoint. According to some sources, the first test run of frozen concentrate was made in Orlando, Florida, by Marvin S. Knight and his associates in 1944. Their method, which involved freezing the juice and extracting the water by centrifugal force, produced an excellent product, but was not practical as a commercial process. Workers at the University of Florida also produced an excellent concentrate by this process, but the batch method of operation was not economical enough for commercial adaptation.

In the same year, Knight joined forces with Clyde D. Middleton and they began experimenting with the high-vacuum process that is used today. They persuaded B. C. Skinner, President of Citrus Concentrate, to try their process at Dunedin in the fall of 1944. In January 1945 the first commercial run of frozen concentrate was made by the high-

vacuum process. Fire destroyed Skinner's plant in August and he did not begin operations again until the spring of 1948. Snow Crop Marketers, Incorporated, bought a controlling interest in Juice Industries, Incorporated, in October 1948 and is now using the Dunedin plant to produce Snow Crop concentrate.

Although frozen concentrate was first made commercially at Dunedin, volume production was first undertaken at Plymouth by the Vacuum Foods Corporation. The National Research Corporation of Massachusetts organized Vacuum Foods to exploit in the citrus field the high-vacuum dehydration processes. These processes were originally developed by National Research to make penicillin in large quantities. The facilities at Plymouth were built to make powdered orange juice under a 1945 contract with the United States Army. When the war ended, this contract was canceled and the plant was converted to frozen concentrate production in April 1946. Vacuum Foods, with its Minute Maid brand of frozen orange juice, was soon leading the field in the production of concentrate.

A third pioneer with frozen concentrate has been the Citrus Canners Cooperative at Lake Wales. The plant began production in February 1948 and the capacity has since been expanded to take care of the increased demand for its product which is marketed by General Foods Corporation under its Birds Eye label.

Recently Pasco Packing Company at Dade City has entered the frozen concentrate field on a large scale. This company, which in 1948-49 processed 23 percent of all the citrus processed in Florida, has, according to some reports, about one-fourth of the frozen concentrate plant capacity.

The Florida Citrus Commission, through its Research Division, has also played an important part in developing the frozen citrus industry. Its main contribution was the perfection of a technique for standardizing the concentrate with fresh juice. The technique is covered by public service patents and is available to anyone who wishes to use it.

The Process

Except for minor variations from plant to plant, the manufacture of frozen concentrates is fairly well standardized. Fruit is trucked to the plant, transferred by mechanical handling equipment to the fruit bins, and analyzed by representatives of the Inspection Service of the Florida Department of Agriculture as to solids content and ratio of sugar to acid. The fruit is then graded and blended in order to maintain as far as possible a consistent quality. From the bins, the fruit moves on conveyors to the juice extractors through baths which wash and sterilize the surface of the fruit. At the juice extractors the peel, pulp, and seeds are removed for storage and subsequent conversion into by-products.

From the extractors the juice is piped to evaporators where enough water is removed to bring the juice up to about 65 percent of solids. After concentration, enough fresh juice is added to bring the mixture down to about 42 percent of solids. At this stage, concentrate held in storage is sometimes added to standardize the natural sugar ratio. The product is quickly cooled to 15° to 20° Fahrenheit, packed in cans, frozen solid, and stored at about minus 10° Fahrenheit.

Temperatures during the concentrating process are kept below 70° Fahrenheit with the result that the fresh fruit flavor is not impaired by heat or oxidation. Since heat cannot be used to destroy the organisms that cause deterioration, however, extreme cleanliness is required throughout the operation in order to produce high-quality juice. The standardization by means of fresh juice adds natural aroma to the product and replaces part of the pulp that is removed in the juicing process. If kept at sub-zero temperature, juice processed in this manner can be stored indefinitely with no deterioration in quality.

The process yields a product that is more uniform than either single-strength or fresh juice. Variations in the solids content of fresh fruit can be completely controlled with the frozen concentrate process. By proper blending, most of the natural variation in the sugar-acid ratio can also be controlled. One promising development in this connection is the blending of concentrate from oranges processed late in the season with oranges processed early in the succeeding season. Usually the ratio of sugar to acid increases as the season advances. Frozen Valencia orange concentrate made at the end of one season, for example, can be held over and mixed with concentrates made from early and mid-season oranges to standardize the product.

Frozen concentrates also have an advantage in that they are less bulky than either fresh fruit or single-strength juices. On an average, a 90-pound box of citrus fruit yields about 40 pounds of single-strength juice or about 10 pounds of frozen concentrate. In most areas where frozen concentrate is sold, the cost of transporting fresh fruit is greater than the combined cost of processing and transporting an equivalent amount of frozen concentrate.

Consumer acceptance of the product is best shown by the rapid increase in sales, but results of controlled experiments indicate that the frozen product is comparable with fresh juice. In one such test, conducted by the Massachusetts Institute of Technology, the preferences of fifty people for canned, frozen, or fresh early-season Florida Valencia orange juice were determined. From these tests the investigators concluded that high-quality canned juice was less preferable than either fresh or frozen juice. There was no significant difference in preferences for fresh juice or frozen juice.

Economic Organization

The frozen concentrate industry differs from the single-strength juice industry with respect to economic organization fully as much as the concentrate itself differs from juice processed by the older methods. One important difference is the size of the individual plant and the capital investment required for efficient operation. At mid-1949, for example, Minute Maid's plant and equipment was valued at approximately three and a half million dollars. During the 1948-49 season Minute Maid and three of its competitors accounted for about 90 percent of all the frozen citrus concentrate sold in this country. The plant investments of the other companies are similar in size to that of Minute Maid. In 1948-49 there were about sixty canning plants in Florida, but current reports to the Florida Canners Association show only ten firms now operating orange concentrate facilities. Because of the large capital investment required, the frozen concentrate industry will likely continue to be dominated by a few firms.

The most significant feature of the frozen concentrate industry, however, is that the leading role is played by large nationally known companies. These companies, such as General Foods and Clinton Foods, are bringing new viewpoints and operating methods into the citrus industry. Since they have already established a reputation for quality, they will undoubtedly maintain a consistently high quality in their citrus products.

Their success is based upon the handling of large quantities of food products at relatively small profit margins. They are not particularly interested, therefore, in windfall profits on inventories that accrue as a result of fluctuations in fruit prices. Stable prices provide the ideal situation for this type of enterprise. Unless competition forces them to do so, they are not likely to engage in price wars. Because of their large size, they cannot afford to undergo the risk of being charged with monopoly or unfair trade practices in attempts to freeze out competitors.

Another important difference between the methods of the present leaders in the frozen concentrate industry and those of many processors of single-strength juice is the emphasis placed upon distribution. Many smaller canners confine their operations simply to processing citrus fruit and rely upon the best available means to get their product to the consumer. Most large concentrators, on the other hand, operate on the principle that success depends upon a good product and also upon an extensive sale and marketing organization.

Most of the frozen concentrate is sold under well-known brand names that are kept before the consumer by intensive advertising programs. Although much of the concentrate is sold through wholesale frozen-food distributors, other methods are coming into use. At least one company is experimenting with franchises as a means of getting more widespread distribution. Some companies supply the retailers with the necessary equipment for handling the concentrate. Such equipment includes refrigerated cabinets in retail food stores, dispensers for installation in drug stores and restaurants, and coin-operated vending machines.

In the short time that frozen concentrate has been in commercial production more than thirty brand names have been put on the market. In the single-strength juice industry, a similar situation made the job of sales promotion extremely difficult. Consumers were confronted with so many different brands that they never learned to buy juice by brand name. There is strong evidence, however, that most frozen concentrate will continue to be sold under a very few brand names. The companies that are dominant in the field are already established in most of the distribution channels for frozen foods. Most of the large retail food chains, for example, prefer to handle only two or three lines of frozen foods. Since retail food chains buy over half of all the processed citrus, their attitude is of particular importance.

Handling of frozen food has been relatively expensive. One reason has been that wholesalers have had to handle small quantities of a large number of items in order to supply a complete line of frozen foods. Frozen orange juice sales, however, have reached such large proportions that substantial savings have been possible in handling costs. It would not be to the advantage of a wholesale distributor to reverse this process by handling many different brands of frozen citrus concentrate. The successful establishment of a new brand on the market, therefore, is likely to be a difficult procedure unless the company is large enough and has sufficient financial resources to maintain an extensive distributing organization.

The rapid increase in production and sales of frozen concentrate, the expansion of processing facilities, and the earnings record of the larger concentrators provide ample evidence that this product is being successfully exploited. In 1945-46 only 188,000 boxes of Florida oranges were used in its manufacture. This number has increased steadily from 466,000 boxes in 1946-47 to 1,600,000 boxes in 1947-48 and to 8,320,000 boxes in 1948-49. According to a recent survey by the Department of Commerce and to estimates of persons connected with the industry, over 20 million boxes will be used during the current season. The estimated 1949-50 production is equivalent to 30 million cases of single-strength orange juice. Last season the production of single-strength orange juice was about 19 million cases. Grapefruit juice and blended juices are also being packed by the frozen concentrate method, but the shortage of grapefruit will prevent large quantities from going into any processed form during the current season. Despite the late maturity of the Florida crop this year, more frozen orange concentrate had been produced up to the middle of February than was produced up to the comparable date last season.

At the first of the year, the aggregate rated capacity of the Florida industry was estimated at between 33 million and 36 million gallons, or more than double the capacity at the beginning of 1949. The earnings record of one large company that produces only frozen concentrates and citrus by-products shows losses of 79,000 dollars and 371,000 dollars in 1946 and 1947, respectively, and incomes before taxes of 150,000 and 1,300,000 dollars for 1948 and 1949, respectively.

Effects Upon the Grower

At the beginning of the 1948-49 season, the first in which the quantity of fruit used for frozen concentrates was large enough to have much effect upon the market, the outlook was for another disastrous year. Except for a short period of fairly high prices at the very beginning of the season, prices, during the first part of the season, stayed at about the same levels as a year earlier. Early and mid-season orange prices averaged 71 cents a box on an on-tree basis, compared to 66 cents for the 1947-48 season. From January 1 until the end of the season the general price trend was steadily upward. Prices for Valencias averaged $2.14 on the tree, compared to 60 cents in the preceding season.

Prices Received Per Box for Oranges

	For Processing		*For Fresh Fruit*	
	At Packing House	*On Tree*	*At Packing House*	*On Tree*
1948				
October...	$ .38	$ .08	$ 1.38	$ 1.13
November.	.53	.24	.91	.63
December.	.49	.18	1.12	.83
January...	.97	.67	1.21	.94
February..	1.16	.87	1.39	1.13
March....	1.80	1.54	1.87	1.60
April.....	2.00	1.71	2.43	2.17
May.....	3.25	2.96	3.39	3.14
June.....	3.20	2.91	3.57	3.32
July.....	3.20	2.91	3.58	3.33
1949				
October...	1.45	1.15	2.74	2.49
November.	1.05	.75	1.57	1.30
December.	1.32	1.05	1.71	1.42
January...	2.18	1.88	2.29	2.01

This increase in price was apparently caused by several things: namely, severe freezes in California and Texas which destroyed millions of boxes of fruit, a voluntary volume prorate on fresh fruit sponsored by the Florida Citrus Commission, the sale of two million boxes of oranges by the Florida Citrus Exchange to Snow Crop, and the unprecented demand for frozen orange concentrate. The January freezes in Cali-

fornia and Texas left Florida practically alone in the citrus field with a high-quality crop. By means of the volume prorate, fresh fruit shipments were kept at a fairly steady volume from week to week which, in turn, permitted growers to obtain maximum returns from the fresh fruit market. The terms of the sale to Snow Crop also helped to stabilize the market. According to Government figures, on November 15 growers were receiving an average of 53 cents a box for oranges delivered to processing plants. The contract with Snow Crop, signed on November 20, provided for a minimum price of one dollar a box or the current weekly market price, whichever was higher. The brisk bidding by concentrators, even at steadily rising prices, also helped to bolster prices received for both fresh and canned fruit.

Production Costs for Mixed Groves

Per Acre	*1946-47*	*1947-48*	*1948-49*
Labor, power, and equipment	$ 76.42	$ 75.50	$ 67.86
Fertilizer materials	57.33	56.63	38.28
Spray and dust materials	12.47	10.06	11.03
State and county taxes	6.03	8.86	9.33
Miscellaneous	7.64	7.33	11.86
Total operating costs	159.89	158.38	138.36
Interest on investment at 6 percent	39.12	39.79	39.13
Total cost without owner supervision	199.01	198.17	177.49
Per Box			
Total operating costs	.55	.50	n.a.
Total cost without owner supervision	.68	.62	n.a.

Average of 220 groves over 10 years of age compiled by the Florida Agricultural Extension Service.

During the early part of the current season, prices paid by processors fell almost to the minimum price set by Mutual. One reason for the early season weakness in prices was that the imposition of the new maturity law happened to coincide with a citrus crop of unusually late maturity. Fruit that could not pass the requirements for the fresh fruit market had to be processed. Since little fruit was suitable for processing into frozen concentrate before the first of December, the only market was the single-strength juice industry.

About the first of January when fruit was passing the maturity standards more easily and when concentrators were starting to operate, California had another severe freeze which destroyed several million boxes of fruit. Prices rose rapidly and by the end of January concentrators were paying as much as $2.75 a box for oranges. Present indications are that fruit will sell at relatively high prices until the end of the season as concentrators, canners, and the fresh fruit trade compete for the remainder of the crop.

As a result of the misfortunes in other citrus producing areas and the new outlet provided by frozen concentrates, citrus growing in Florida has again become a very attractive proposition. Grove prices have more than doubled in a two-year period. These events do not necessarily mean that the development of the frozen concentrate industry has automatically insured continued prosperity for the growers. Since Mutual now controls virtually all the citrus grown in the state, however, growers are in a better position to stabilize the industry at profitable levels than ever before. Mutual is organized under the cooperative laws which means that it can operate as a monopoly. It can use this monopoly power to prevent extreme fluctuations in fruit prices and in this way prevent the type of price wars between concentrators which could again drive prices to distress levels.

Most of the larger frozen concentrate companies probably would prefer not to use price competition as a means of capturing a larger share of the market, but would rather rely primarily upon outstripping their competitors by more efficient production and distribution. In a period of intense price competition, of course, concentrators who directly control a large proportion of their raw material supply would have a decided advantage over concentrators who must buy all of their fruit in the market. The recent large purchases of groves by some of the large concentrators may be an indication that they are skeptical of the growers' ability, through Mutual, to stabilize prices effectively. As some concentrators approach direct control of the fruit needed for their operations, the more likely extensive price competition becomes and the more powerless Mutual becomes as a policing force on fruit prices.

According to the cost studies conducted by the Florida Agricultural Extension Service, it is possible to produce fruit on a large scale at a cost of less than a dollar a box, including 6 percent interest on the investment in the grove. Concentrators whose main concern is processing and distribution profits could afford to operate groves on a cost-of-production basis if in that way they could meet price competition and protect their investment in processing and distribution facilities.

It seems probable that the development of the frozen concentrate industry will hasten the stabilization of prices for Florida citrus regardless of what the growers do. From the growers' standpoint the important question is, Who will reap the benefits of stable citrus prices? If the growers themselves are able to stabilize prices, concentrators can continue to devote their attention to expanding the market for their product through improvements in production and distribution. The frozen concentrate industry, therefore, offers an opportunity for more profitable citrus growing, but it is one that growers must exploit quickly and wisely if it is to become a reality.

BROWN R. RAWLINGS

Bank Announcements

During February two banks began remitting at par. One of these was the Bank of Waynesboro, Waynesboro, Georgia, a nonmember bank which began remitting at par on February 1. This bank has capital of $75,000, surplus and undivided profits of $126,000, and deposits of $2,485,000. The bank's officers are M. K. Tucker, President; F. M. Skinner, M. R. Oliver, and J. W. Collins, Vice Presidents; E. E. Stephens, Cashier; and Mrs. Naomi O. Scott and Mrs. Myrtis L. Lovett, Assistant Cashiers.

The second addition to the Par List was The Citizens Bank in Sarasota, Sarasota, Florida. This is a newly organized nonmember bank located in Jacksonville Branch territory. It began remitting at par on February 8. This bank's capital stock amounts to $200,000 and its surplus and undivided profits, to $60,000. The following officers have been elected: J. C. Cardwell, Chairman of the Board; T. J. Bell, President; Kenneth Steffens, Executive Vice President; John R. Peacock, Vice President; Hampton Moore, Vice President and Cashier; and Roege Peacock, Assistant Cashier.

Deposit Growth At Alabama Member Banks

BANK deposits represent the major portion of the purchasing power immediately available to businesses and individuals in any area. Because purchasing power is derived from income, the changes in the amount of total deposits at member banks in Alabama thus reflect the relative income growth in the state.

That growth is impressive. Deposits of all Alabama member banks at the end of 1949 were 3.5 times as great as at the end of 1939. Estimates on 1949 income payments are not yet available; however, 1948 income payments, according to the Department of Commerce data, were 3.8 times as great as in 1939.

Detailed data for a long period of time are not readily available for all banks in Alabama. Any conclusions regarding the trends of deposits at member banks, however, probably apply to those at all banks because member bank deposits constitute 82 percent of the state total of over a billion dollars. The analysis that follows is confined to deposits at member banks.

Wartime Growth

Just after the close of the war, at the end of 1945, the total for all types of deposits in Alabama member banks exceeded the billion dollar mark for the first time. The 1,078 million dollar total represented a 282-percent growth from the prewar year 1939. Total deposits at all member banks throughout the country increased at about three-fifths the Alabama rate of growth.

Purchasing power at the end of the war was more widely distributed to areas outside the major cities of Birmingham and Mobile. The proportion of deposits held in these two cities fell from almost 60 percent of the state total at the end of 1939 to about 50 percent at the end of 1945.

Changes in deposits throughout the entire banking system result chiefly from changes in bank loans and investments. Thus a large part of the rapid growth in Alabama bank deposits can be traced to the banks' financing part of the war's cost. That Alabama banks shared more than banks in other sections of the country in the wartime deposit growth, however, reflected a net flow of funds into the state. More money was spent in Alabama by the Government for military training, erection of war plants, and purchases of supplies than was raised there either by taxation or by borrowing.

The Postwar Period

Some analysts believed that once the war was over Government spending would cease and the trend of deposits would be reversed. So far as total deposit figures are concerned, however, predictions for a major postwar decline in Alabama deposits have not been confirmed.

Percent Change in Total Deposits
Alabama Member Banks, Classified by Area

Area*	End of Year			
	1939 - 45	1945 - 46	1946 - 48	1948 - 49
Alabama:				
Anniston-Gadsden Area..	+ 416	— 4	— 4	+ 5
Birmingham Area.....	+ 271	— 9	+ 4	— 4
City of Birmingham...	+ 239	— 14	+ 6	— 1
Outside Birmingham..	+ 350	+ 2	+ 2	— 8
Dothan Area.....	+ 352	— 20	+ 16	— 12
Mobile Area.....	+ 247	— 8	+ 1	— 3
City of Mobile.....	+ 243	— 9	+ 1	— 3
Outside Mobile.....	+ 306	+ 5	+ 3	+ 3
Montgomery Area.....	+ 252	— 7	+ 3	— 4
State Total.....	+ 282	— 8	+ 3	— 3
United States.....	+ 163	— 9	+ 2	+ 1p

* Areas include several counties surrounding each city.
p Preliminary.

Both in Alabama and in the United States, total deposits declined substantially in 1946 as the Treasury made heavy withdrawals from its war-loan accounts. More valid conclusions regarding postwar trends in deposits can be made, therefore, by analyzing the trends since the end of 1946.

By the end of 1949, total deposits at the Alabama banks were approximately the same as they had been at the end of 1946. Demand deposits in the accounts of both the United States Government and correspondent banks were lower, but time deposits were 7 million dollars greater and demand deposits of individuals, partnerships, and corporations were

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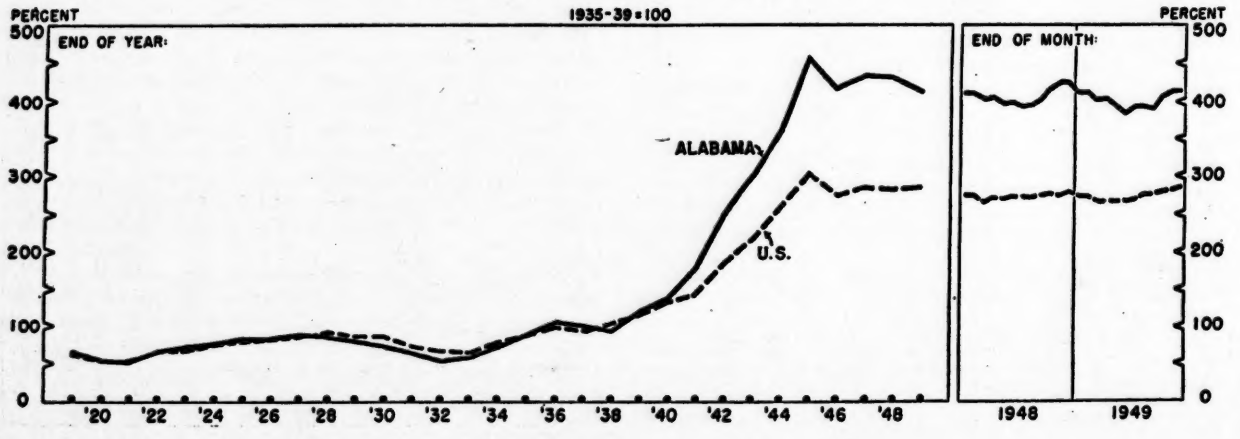

only 3 million dollars lower. There was an increase in total deposits between 1946 and 1948 of 32 million dollars. The expansion of Alabama's income-producing capacity since 1939 offers one explanation for the retention of most of the wartime growth in deposits.

Income and Deposit Changes in 1949

Contrary to the national trend, Alabama's total deposits declined 3 percent between the end of 1948 and the end of 1949, whereas member bank deposits throughout the country increased one percent. Economic changes in 1949 were relatively less favorable to Alabama manufacturing and agricultural income sources than they were to manufacturing and agriculture in general.

About 20 percent of Alabama's income now comes from manufacturing and 16 percent from agriculture. Employment during 1949 in each of the principal manufacturing industries was down from that of 1948. Employment in the metals industries averaged 11 percent less; in textiles, 9 percent; and in lumber, 10 percent. These three industries account for approximately 70 percent of total manufacturing income in the state and have greater relative importance than in many other regions. Also, largely because of lower returns from cotton and peanuts, which in a recent year accounted for over half of Alabama's agricultural income, total agricultural income was down approximately 15 percent from 1948.

Percent Change in Total Deposits, December 31, 1948 - 49
Alabama Member Banks, Classified by Size of City and by City's Chief Manufacturing Activity

City's Chief Manufacturing Activity	No. of Banks	Population of City in Thousands*				
		Below 2.5	2.5 - 15	15 - 50	50 and Over	All Sizes
Textile	28	**	— 6	— 4	..	— 4
Lumber	17	— 9	— 8	..	..	— 8
Metals	9	..	**	— 2	— 1	— 1
Transportation Equipment	5	..	**	..	— 3	— 4
No Predominant Industry	33	—10	—12	— 8	— 2	— 6
All Types	92	— 7	— 8	— 5	— 2	— 3

* 1940 Census.
** Withheld to prevent disclosure of data from individual banks.

These economic changes affected deposits more in the smaller communities of the state than in the larger ones, as the accompanying table shows. In general, the larger cities have a more diversified source of income. Although textile manufacturing may be the chief single source of income in cities of more than 50 thousand population, for example, it may not be of such overwhelming importance as in a smaller city which has few other industries. The lower agricultural income last year also greatly affected banks in the smaller nonmanufacturing communities.

That these changes can be traced so directly to minor variations in agriculture and manufacturing indicates how closely the level of Alabama's bank deposits is tied to the level of her economic activity. At the same time, because the economic base of the state has been so strengthened during the last decade, it is very doubtful that the minor changes in deposits which occurred in 1949 herald a return to prewar conditions.

CHARLES T. TAYLOR

This is the first of a series of six articles in which deposit trends in the individual Sixth District states will be discussed.

Sixth District Statistics

CONDITION OF 28 MEMBER BANKS IN LEADING CITIES
(In Thousands of Dollars)

Item	Feb. 15 1950	Jan. 18 1950	Feb. 16 1949	Percent Change Feb. 15, 1950, from Jan. 18 1950	Percent Change Feb. 15, 1950, from Feb. 16 1949
Loans and investments—Total	2,475,715	2,449,518	2,290,992	+ 1	+ 8
Loans—Net	885,545	883,767	842,290	+ 0	+ 5
Loans—Gross	898,634	895,681	851,629	+ 0	+ 6
Commercial, industrial, and agricultural loans	535,857	533,586	541,436	+ 0	— 1
Loans to brokers and dealers in securities	8,896	7,607	4,115	+ 17	+116
Other loans for purchasing and carrying securities	32,784	33,525	48,404	— 2	— 32
Real estate loans	76,711	79,067	65,425	— 3	+ 17
Loans to banks	4,477	4,405	4,785	+ 2	— 6
Other loans	239,909	237,491	187,464	+ 1	+ 28
Investments—Total	1,590,170	1,565,751	1,448,702	+ 2	+ 10
Bills, certificates, and notes	588,185	565,228	384,555	+ 4	+ 53
U. S. bonds	799,659	798,743	882,416	+ 0	— 9
Other securities	202,326	201,780	181,731	+ 0	+ 11
Reserve with F. R. Bank	414,958	420,196	497,658	— 1	— 16
Cash in vault	39,291	40,657	40,399	— 3	— 3
Balances with domestic banks	198,947	187,145	186,013	+ 6	+ 7
Demand deposits adjusted	1,785,866	1,757,752	1,744,436	+ 2	+ 2
Time deposits	533,082	532,666	526,754	+ 0	+ 1
U. S. Gov't deposits	66,070	46,803	45,178	+ 41	+ 46
Deposits of domestic banks	552,340	571,599	523,000	— 3	+ 6
Borrowings	.....	1,000	.....	..	..

DEBITS TO INDIVIDUAL BANK ACCOUNTS
(In Thousands of Dollars)

Place	No. of Banks Reporting	Jan. 1950	Dec. 1949	Jan. 1949	Percent Change Jan. 1950, from Dec. 1949	Percent Change Jan. 1950, from Jan. 1949
ALABAMA						
Anniston	3	22,265	22,654	23,840	— 2	— 7
Birmingham	6	342,154	378,294	334,159	— 10	+ 2
Dothan	2	14,305	14,011	14,633	+ 2	— 2
Gadsden	3	19,084	21,724r	19,821	— 12	— 4
Mobile	5	118,327	138,167	136,638	— 14	— 13
Montgomery	3	80,304	81,985	76,876	— 2	+ 4
FLORIDA						
Jacksonville	4	301,816	310,501	270,562	— 3	+ 12
Miami	7	275,713	273,178	268,963	+ 1	+ 3
Greater Miami*	13	406,653	381,639r	390,852	+ 7	+ 4
Orlando	3	68,631	65,156	54,887	+ 5	+ 25
Pensacola	3	34,451	44,102	34,316	— 22	+ 0
St. Petersburg	3	70,024	65,918	62,585	+ 6	+ 12
Tampa	7	154,043	158,491	129,438	— 3	+ 19
GEORGIA						
Albany	3	25,327	26,798	27,663	— 5	— 8
Atlanta	4	836,366	928,862	790,286	— 10	+ 6
Augusta	3	57,832	60,630	61,410	— 5	— 6
Brunswick	2	8,818	9,968	8,819	— 12	— 0
Columbus	4	53,973	61,309	49,861	— 12	+ 8
Elberton	2	3,432	4,357	3,742	— 21	— 8
Gainesville*	2	13,434	14,167	13,232	— 5	+ 2
Griffin*	2	11,037	13,631	11,850	— 19	— 7
Macon	3	61,491	67,491	58,043	— 9	+ 6
Newnan	2	10,837	8,903	9,662	+ 22	+ 12
Rome*	3	22,023	24,707	20,502	— 11	+ 7
Savannah	4	83,232	96,667	89,703	— 14	— 7
Valdosta	2	11,782	12,572	11,911	— 6	— 1
LOUISIANA						
Alexandria*	3	33,460	35,856	30,881	— 7	+ 8
Baton Rouge	3	112,589	110,233	109,530	+ 2	+ 3
Lake Charles	3	36,725	40,718	37,430	— 10	— 2
New Orleans	8	721,207	773,920	675,633	— 7	+ 7
MISSISSIPPI						
Hattiesburg	2	17,549	18,052	16,281	— 3	+ 8
Jackson	3	160,212	140,561	165,516	+ 14	— 3
Meridian	3	25,442	26,429	27,043	— 4	— 6
Vicksburg	2	24,355	26,836	26,388	— 9	— 8
TENNESSEE						
Chattanooga	3	168,056	159,946	160,860	+ 5	+ 4
Knoxville	4	129,844	133,106	120,900	— 2	+ 7
Nashville	6	316,514	357,891	293,194	— 12	+ 8
SIXTH DISTRICT 33 Cities	115	4,366,700	4,639,450	4,170,593	— 6	+ 5
UNITED STATES 333 Cities		106,636,000	118,197,000	105,204,000	— 10	+ 1

* Not included in Sixth District total.

District Business Conditions

Farm Price Supports

IN THE Agricultural Act of 1949 the Government promised farmers continued price supports for many of their products as an insurance against precipitous declines below the price levels in other segments of the national economy. The Commodity Credit Corporation, through which the program is administered, now finds, however, that there is not enough money presently available to insure prompt fulfilment of that promise. It has, therefore, asked Congress for an additional 2 billion dollars borrowing authority from the Treasury.

The amount required to keep the prices of some farm products from declining much below a parity relationship is large. On December 31, for example, the CCC had committed 3,343 million dollars in an attempt to keep the prices of food, fiber, and feed crops from dropping below support levels. Since the Corporation cannot exceed its 4,750 million dollar limitation, this left only 1,407 million dollars for the price support of commodities through June 30. Another 553 million must be subtracted for current operating obligations. Actually, therefore, at the beginning of the year the CCC had only 854 million dollars available. Although, at first glance, that amount seems large, it is relatively small for the work it has to do, inasmuch as the CCC is charged with the responsibility of placing floors under most of a 20 billion dollar farm business.

Government support of potato prices has dramatized the role of the CCC. What to do with the potatoes acquired in the supporting of prices, as well as what to do with other perishables such as cheese and eggs, presents a perplexing problem. Less baffling, but equally serious, is what to do with the storable commodities. The CCC cannot sell these products in the domestic market at less than the support price plus carrying charges plus 5 percent. With a declining market price, this means that the CCC cannot sell at all in normal home markets.

A recollection of the purpose for which the CCC was created will perhaps make it easier to appreciate the need for additional funds. It was organized in 1933 as a Delaware corporation to stabilize prices against fluctuations in production and demand and to raise prices over a long period. The effect of its price-raising policy was evident by the initial loan rate for cotton in 1933, which was almost twice the previous open market price. At that time the CCC had available the Agricultural Adjustment Administration to reduce production and thereby prevent ruinous stocks from accumulating. Its predecessor, the Federal Farm Board, did not have the advantage of such an agency.

In view of the present downward trend in the prices of most farm products and in view of the growing inventories in the hands of the CCC, a statement in the last annual report of the Federal Farm Board, covering operations for 1932, is pertinent. The report reads, "The experience of the past two years shows that it is futile to engage in stabilization purchases for any product over a period of years in the face of constantly accumulating surpluses of that product."

The Farm Board's conclusion, of course, may not be valid if rising prices or production controls succeed in keeping inventories from rising to an unmanageable level, or if taxpayers are willing to pay the premiums on such stabilization insurance. The CCC is apparently relying upon these factors to enable it to weather a situation similar to the one the Federal Farm Board found untenable.

During the 1930's, after the CCC was created, the trend of farm prices turned generally upward, but this was largely because of an over-all improvement in business conditions and several seasons of poor crop yields which reduced production. The war and postwar demands of the 1940's pushed prices even higher. Thus, the CCC has not been really tested for its ability to stabilize prices against wide fluctuations in demand or supply.

In May 1941, Congress took from the CCC the power to fix the limits within which prices would be supported. In response to non-economic as well as to economic motives, Congress directed the CCC to make loans on 1941 basic commodities (cotton, corn, wheat, rice, and tobacco) at a single figure—85 percent of parity. That figure was appreciably higher than the previous year's loan rates—56 percent for cotton, 57 percent for wheat, and 75 percent for corn.

Aside from designating the nation's major crops as "basic" and applying the same support figure, the directive also tended to unite farmers into a group. The result was that the support of farm product prices became a general program. In response to demands of producers of basic crops, Congress projected the 85-percent rate into the future and made it mandatory. Producers of those crops could then know before planting time the approximate levels at which the prices of their crops would be supported. In October 1942, the rate was raised to 90 percent.

Expenditures for farm price-support programs in the past are given in the reports of the CCC. The Corporation's request embodied in the Federal budget for 1951 gives an estimate of what price-support operations may require in that year. Last year the support of basic crops involved a net expenditure of 1,180 million dollars. Supports on nonbasic commodities of 626 million dollars raised the total net expenditure to 1,806 million. The estimates for those expenditures in 1950 are 1,063 million dollars for basics and 323 million for nonbasics. In 1951 the estimates are 765 million dollars for basics and 123 million for nonbasics.

The inventories of price-support commodities which the CCC is presently carrying and which it may be required to finance are the main reason why it has asked for additional operating capital. The dollar volume of these inventories is increasing annually as follows: from 149,719,000 in 1948 (June 30) to 1,081,764,000 in 1949, to an estimated 2,193,691,000 in 1950 and 3,064,178,000 in 1951.

These inventory values are obviously not costs but, in the face of a declining export market and since the commodities cannot be sold domestically at less than cost plus carrying charges, it would be difficult to predict their market value at the time of sale.

Increasing costs of price-support programs raises the possibility or desirability of cutting down on expenditures. There are basically only two ways to cut the costs of the farm price-support program. Either production must be reduced to the point where inventories will not accumulate, or price supports must be lowered to the point where commodities will move into normal trade channels. The prospects

of either method becoming a reality seem remote. As long as *acres* are the basis of the control program, farmers will intensify their efforts and, weather permitting, will come up with a yield which will still require the purchase of surpluses. Cuts in production, severe enough to reduce the supply to the point where there would be no surpluses, might be rejected by farmers in a referendum.

That the price-support program has meant much to farmers is beyond question and it may be that the costs of the program have been more than repaid in benefits to the economy as a whole. It should not be inferred, however, that the farmers have prospered solely because of Government price-support activities. Many farm products enjoy no support and the prices of other farm products are above support levels and have required no expenditure of public funds. Farmers have improved their income position mainly because other segments of the economy have prospered. Then, too, farmers have become more efficient through the application of more machinery and scientific information in their production programs. J.L.L.

Member Bank Profits

Sixth District member banks as a group found 1949 more profitable than 1948 according to preliminary tabulations of reports for last year. Net current earnings before income taxes were 6 percent greater. Net profits increased 28.5 percent. Profits in 1948 would have been higher, however, if it had not been for the fact that many banks set up, for the first time, reserves for bad-debt losses on loans.

The experience of the member banks as a group during 1949 closely paralleled that of all banks throughout the country so far as net current earnings are concerned. All member banks reported the same percentage increase from 1948 to 1949 as those in the District. Net profits after taxes, however, were up only 10.6 percent at all member banks.

Percentage rates of change in net profits ranged from a decline of 21.6 percent at the District banks with deposits of less than one million dollars to an increase of 47.1 percent at the banks with deposits of over 25 million. This discrepancy results largely from the different methods used by the banks to provide for bad-debt losses on loans. A greater proportion of the large banks set up such reserves in 1948 than did the smaller ones.

Percent Change in Net Profits, 1948-49
Sixth District Member Banks

DEPOSIT SIZE OF BANKS (In Millions)	Ala.	Fla.	Ga.	La.	Miss.	Tenn.
Less than $3.5	+ 9.7	— .2	—13.7	+20.2	—53.3	+ 9.2
$3.5 to $7	+18.9	+28.4	+ 2.4	+ 6.6	— 2.9	+24.7
$7 to $15	+18.9	+ 9.5	+11.4	+16.6	— 1.4	— 5.9
Over $15	+ .4	+58.8	+53.0	+43.5	—31.4	+25.6
All Sizes	+ 7.5	+44.9	+35.3	+37.1	—19.3	+21.4

The accompanying table of changes in net profits by size of bank and by state shows, however, that the profit experience of banks differed considerably from state to state. The declines in net profits from 1948, of course, do not necessarily indicate that the banks had an unprofitable year. Almost without exception all member banks earned net profits during 1949. Not only were they able to pay the customary dividends but they were also able to add substantially to capital. C.T.T.

Sixth District Indexes

DEPARTMENT STORE SALES*

Place	Adjusted** Jan. 1950	Adjusted** Dec. 1949	Adjusted** Jan. 1949	Unadjusted Jan. 1950	Unadjusted Dec. 1949	Unadjusted Jan. 1949
DISTRICT	376	382	378r	285	642	287
Atlanta	441	443	420r	313	700	298
Baton Rouge	415	449	442r	291	728	309
Birmingham	369	335	422r	265	539	303
Chattanooga	338	398	326r	253	641	244
Jackson	392	416	394r	286	633	287
Jacksonville	359	414	400r	280	692	312
Knoxville	333	393	364r	260	640	284
Macon	340	342	339r	225	615	224
Miami	376	370	376r	365	669	365
Montgomery	355	359	382r	266	611	287
Nashville	407	438	430r	272	731	288
New Orleans	362	370	368r	286	592	290
Tampa	482	498	455r	395	617	373

DEPARTMENT STORE STOCKS

Place	Adjusted** Jan. 1950	Adjusted** Dec. 1949	Adjusted** Jan. 1949	Unadjusted Jan. 1950	Unadjusted Dec. 1949	Unadjusted Jan. 1949
DISTRICT	357	352	360r	321	306	324
Atlanta	464	424	432r	395	352	367
Birmingham	252	282	313r	240	240	297
Montgomery	326	351	411r	297	281	374
Nashville	523	496	539r	439	441	452
New Orleans	344	322	344r	306	290	306

GASOLINE TAX COLLECTIONS***

Place	Adjusted** Jan. 1950	Adjusted** Dec. 1949	Adjusted** Jan. 1949	Unadjusted Jan. 1950	Unadjusted Dec. 1949	Unadjusted Jan. 1949
SIX STATES	233	224	207	233	228	207
Alabama	228	217	214	223	221	209
Florida	219	202	200	227	200	208
Georgia	231	234	180	235	233	184
Louisiana	276	238	236	273	240	234
Mississippi	205	220	209	193	225	196
Tennessee	247	237	224	235	256	213

COTTON CONSUMPTION*

Place	Jan. 1950	Dec. 1949	Jan. 1949
TOTAL	150	143	134
Alabama	158	155	141
Georgia	151	141	134
Mississippi	98	86	86
Tennessee	123	117	111

ELECTRIC POWER PRODUCTION*

	Dec. 1949	Nov. 1949	Dec. 1948
SIX STATES	371	363	366
Hydro-generated	322	330	346
Fuel-generated	435	406	393

MANUFACTURING EMPLOYMENT***

Place	Dec. 1949	Nov. 1949	Dec. 1948
SIX STATES	141	138	150
Alabama	144	133	153
Florida	136	129	145
Georgia	141	142r	144
Louisiana	140	142	156
Mississippi	134	134r	147
Tennessee	143	141	152

CONSTRUCTION CONTRACTS

Place	Dec. 1949	Nov. 1949	Dec. 1948
DISTRICT	501	614	337
Residential	596	676	386
Other	455	580	314
Alabama	478	964	175
Florida	534	415	543
Georgia	442	633	196
Louisiana	369	866	280
Mississippi	717	531	248
Tennessee	619	445r	339

CONSUMERS PRICE INDEX

Item	Jan. 1950	Dec. 1949	Jan. 1949
ALL ITEMS	169	171	174
Food	197	198	208
Clothing	192	192	203
Fuel, elec., and refrig.	140	138	139
Home furnishings	183	184	195
Misc.	155	155	153
Purchasing power of dollar	.59	.58	.57

ANNUAL RATE OF TURNOVER OF DEMAND DEPOSITS

	Jan. 1950	Dec. 1949	Jan. 1949
Unadjusted	21.1	21.7	20.1
Adjusted**	20.0	19.2	19.0
Index**	80.9	77.7	77.0

CRUDE PETROLEUM PRODUCTION IN COASTAL LOUISIANA AND MISSISSIPPI*

	Jan. 1950	Dec. 1949	Jan. 1949
Unadjusted	318	316	305
Adjusted**	312	327	300

*Daily average basis
**Adjusted for seasonal variation
***1939 monthly average = 100; other indexes, 1935-39 = 100
r Revised

Member Bank Loans

One thing preventing a decline in total loans at member banks, which usually occurs at this time of the year, has been the continued growth in consumer borrowing. At the end of January, total loans at all District member banks were 7 million dollars greater than at the end of December. Ordinarily they decline about 2 percent between these two dates.

The combined loans of all member banks increased during January in Alabama, Florida, Louisiana, Mississippi, and Tennessee. At Georgia member banks the slight decline was less than would ordinarily be expected at this time of the year. The growth was greater at banks outside the District leading cities than at the banks located in these cities.

C. T. T.

Industry and Employment

THE VALUE OF CONSTRUCTION CONTRACTS awarded in the Sixth District reached a record high in January. Although the January 1950 total is off about 9 percent from December, it is twice as large as that for January 1949. A record was also set in the value of residential contracts awarded, as January awards increased 13 percent over the December total and were 97 percent larger than in January last year. Residential awards accounted for 50 percent of the total, as against 38 percent for last January and an average of 43 percent for the year 1949. Florida again led the other five District states in both total and residential awards, claiming about 41 percent of total awards and 52 percent of residential awards. In each of the six states residential awards were greater than they were a year ago. The same was true for total awards except in Louisiana.

According to the index of the American Appraisal Company, construction costs were about 3.6 percent lower by the end of 1949 than they had been at the end of 1948. Nearly all of this decline occurred in the first eight months of the year. The Bureau of Labor Statistics index of wholesale prices of building materials dropped off monthly from the September 1948 high point through August 1949, but since that time it has risen slightly each month.

TEXTILE MILL ACTIVITY, on the basis of the daily average rate of cotton consumed by the mills in Alabama, Georgia, Mississippi, and Tennessee, increased 5 percent in January, and was 12 percent greater than in January 1949. In each of the past three years cotton consumption has declined substantially between January and July, the latter month being the time when the mills usually close for a vacation period. In July 1949, however, the market for cotton goods and products improved, and mill activity increased considerably in the ensuing months.

There was also an increase in the returns from operations. Mill margins—the difference between the price of a pound of raw cotton and the price of the product made from it—had declined from 64.70 cents per pound in December 1947 to 27.75 cents in June 1949. However, between June and November 1949 these margins rose to 38.17 cents, an increase of more than ten cents a pound, or 37.5 percent above the June low. In the six-month period, August through January, District mills used 1,548,978 bales of cotton, an increase of 5 percent over the corresponding period a year earlier.

STEEL MILL ACTIVITY in the Birmingham-Gadsden area was reported at from 101 to 103 percent of rated capacity in December and January, but in February, operations declined because of the coal shortage; in the week of February 12 the reported rate was 82 percent. Coal production in Alabama and Tennessee, on the basis of a three-day work week in December, was down about 7 percent in January. It was about 30 percent less than in January 1949 and there were further reductions in February.

ELECTRIC POWER PRODUCTION in the District states was up a little more than 2 percent in December, to the highest level since last February. For the first time since June, hydro-generated current accounted for slightly less than half the total. For the year 1949, total production was 7 percent greater than in 1948; hydro-generated power was up 23 percent; and fuel-generated power was off 6 percent.

MANUFACTURING EMPLOYMENT in the District was 2 percent higher on the average at the middle of December than it was a month earlier, and 3.1 percent above the October level. It was, however, nearly 6 percent lower than a year earlier. In only three of the more important industries—food and kindred products, apparel, and paper and allied products—was December employment greater than in December 1948. The index of manufacturing employment computed by this Bank had declined each month from October 1948 through July 1949, but had recovered somewhat in August and September. In October, however, largely as the result of the steel strike, the index declined to about the July level. Some workers had returned to their jobs by mid-November, and by mid-December many more were back at work.

In the primary metals industries in Alabama, Tennessee, and Georgia, employment dropped 23,400 between mid-September and mid-October, but in December nearly 22,000 of these workers returned to work. A large proportion of that number was, of course, in Alabama, where the majority of the District iron and steel plants are located. In December the termination of labor disputes in several fabricated metals plants contributed to a gain of 800 workers in that group. There were also employment gains during December in Alabama chemical industries, in transportation equipment, and in textiles. A small loss occurred in the food processing plants as a result of seasonal contraction.

December manufacturing employment in Florida increased 5.8 percent from November, but was 6.1 percent below the level recorded for a year earlier. There was a gain of 22.1 percent in employment in the food and kindred products industries, as the citrus season progressed. In the canning and preserving part of this group, December employment in Florida was up 68.3 percent. In fabricated metal products also there was an increase of 6.7 percent in December, and there were gains in nearly all other groups on which reports are available except tobacco manufacturing, where employment declined 5.1 percent.

In Georgia, manufacturing employment was off seven-tenths of one percent from November to December. The largest gain for the month in the state was in the primary metals industries, where employment increased following settlement of the steel strike. The largest decrease was a seasonal decline in the food and kindred products industries, particularly in the canning and preserving of fruits and vegetables. There were gains in lumber and wood products and in textile mill products, and losses in the transportation equipment, apparel, and chemicals industries.

Manufacturing employment in Louisiana was off 1.1 percent from November to December and 9.9 percent below December 1948. Increases for the month in transportation equipment; stone, clay, and glass; printing and publishing; and paper and allied products were offset by decreases in lumber and wood products, metals, metal products, and ma-

chinery. A reduction of 4.5 percent in the food processing industries resulted from a sharp recession in seafood items and from seasonal reductions in beverages, ice cream, and ice.

Tennessee manufacturing employment was up 1.8 percent from November. This increase can be attributed to the return of workers in primary metals industries, a seasonal increase in tobacco manufacture, and small gains in some other groups. Decreases in food, apparel, and paper brought the total increase down somewhat. D. E. M.

Sales of Consumer Durable Goods High

Current reports show a continuing shift toward the buying of durable goods by consumers. January sales of household appliances at the larger department stores in the Sixth District this year were 31 percent greater than January sales last year. Furniture sales at those stores were up 13 percent and piano, radio, and television sales were up 7 percent. On the other hand, women's dress sales were down 17 percent and men's clothing sales, 13 percent. Sales declines in other nondurable goods departments brought total sales down 2 percent from last year at all reporting department stores.

A better showing, compared with last year, was made by the District department stores during the first three weeks of February. Total sales at the weekly reporting stores exceeded those of the corresponding period last year by 7 percent.

Consumers throughout the United States spent 2 percent more in January this year at large independent retail stores reporting to the Department of Commerce than they did in January 1949. The reason for the increase, however, was the expanded sales at the durable goods stores. Motor vehicle dealers' sales were up 31 percent and sales by furniture stores and by lumber and building materials dealers were up 6 percent each. Sales declined at the stores specializing in nondurable goods.

Year by year, American consumers have been making a greater proportion of their purchases at the durable goods stores. In 1946 they spent about 23 cents at the durable goods stores out of every dollar's trade at retail stores; in 1947, 27 cents; in 1948, 29 cents. In 1949, with the sales of durable goods expanding and sales of nondurables contracting, consumers spent about 31 cents out of every dollar at the durable goods stores; 18 cents of which went to the automotive stores. Seven cents went to the lumber and building materials dealers and 5 cents to home furnishings stores.

In the past, durable goods stores have received a larger part of the consumer's dollar during periods when total sales were at a peak than during periods of low sales, but in 1949 that proportion was larger than ever before—31 percent. In prosperous 1929 their sales made up 29 percent of total sales. By the depression year 1933, on the other hand, durable goods store sales constituted only 20 percent of the total.

Use of instalment credit has made possible a great part of this high purchasing of durable consumer goods. Consequently, as would be expected, instalment credit continues to expand in the current period. Instalment accounts receivable at District department stores at the end of January were 59 percent greater than on the corresponding date last year. At furniture stores accounts receivable were up 16 percent and at household appliance stores, 47 percent. On the same date commercial banks in the District had an estimated 38 million dollars more in automobile instalment paper outstanding than a year ago. C. T. T.

Sixth District Statistics

INSTALMENT CASH LOANS

Lender	No. of Lenders Reporting	Volume: Percent Change Jan. 1950, from Dec. 1949	Volume: Percent Change Jan. 1950, from Jan. 1949	Outstandings: Percent Change Jan. 1950, from Dec. 1949	Outstandings: Percent Change Jan. 1950, from Jan. 1949
Federal credit unions	41	— 15	+ 35	— 0	+ 38
State credit unions	20	+ 11	+ 78	+ 2	+ 43
Industrial banking companies	10	+ 16	+ 48	+ 4	+ 23
Industrial loan companies	17	— 36	— 4	— 8	+ 1
Small loan companies	40	— 38	+ 7	— 1	+ 5
Commercial banks	33	— 2	+ 24	+ 2	+ 38

RETAIL FURNITURE STORE OPERATIONS

Item	Number of Stores Reporting	Percent Change Jan. 1950, from Dec. 1949	Percent Change Jan. 1950, from Jan. 1949
Total sales	124	— 49	+ 12
Cash sales	107	— 50	— 10
Instalment and other credit sales	107	— 49	+ 13
Accounts receivable, end of month	118	— 4	+ 16
Collections during month	118	— 1	— 5
Inventories, end of month	91	+ 0	— 4

WHOLESALE SALES AND INVENTORIES*

Item	SALES: No. of Firms Reporting	SALES: Percent Change Jan. 1950, from Dec. 1949	SALES: Percent Change Jan. 1950, from Jan. 1949	INVENTORIES: No. of Firms Reporting	INVENTORIES: Percent Change Jan. 31, 1950, from Dec. 31 1949	INVENTORIES: Percent Change Jan. 31, 1950, from Jan. 31 1949
Automotive supplies	4	+ 9	— 26	3	— 8	— 13
Electrical group						
Full lines	3	— 22	+ 1			
Wiring supplies	3	— 11	— 26	3	— 2	— 12
Appliances	8	— 19	— 23	7	+ 12	— 21
General hardware	12	+ 6	+ 0	7	+ 4	— 5
Industrial supplies	3	— 1	— 26			
Jewelry	4	— 74	— 23	3	+ 2	— 14
Plumbing and heating supplies	4	+ 7	+ 4	3	+ 5	— 16
Confectionery	3	— 9	0			
Drugs and sundries	9	+ 11	+ 3	3	— 1	+ 6
Dry goods	20	+ 16	— 1	15	+ 25	+ 7
Groceries						
Full lines	30	+ 0	— 8	19	— 3	— 6
Specialty lines	11	— 0	— 7	7	— 36	— 19
Shoes and other footwear	3	+ 48	— 24			
Tobacco products	12	— 7	— 5	9	+ 21	+ 7
Miscellaneous	16	— 3	+ 10	14	— 2	— 13
Total	145	+ 0	— 5	93	+ 4	— 5

* Based on U. S. Department of Commerce figures.

DEPARTMENT STORE SALES AND INVENTORIES

Place	SALES: No. of Stores Reporting	SALES: Percent Change Jan. 1950, from Dec. 1949	SALES: Percent Change Jan. 1950, from Jan. 1949	INVENTORIES: No. of Stores Reporting	INVENTORIES: Percent Change Jan. 31, 1950, from Dec. 31 1949	INVENTORIES: Percent Change Jan. 31, 1950, from Jan. 31 1949
ALABAMA						
Birmingham	4	— 53	— 13	3	— 0	— 19
Mobile	5	— 60	+ 1			
Montgomery	3	— 58	— 7	3	+ 6	— 21
FLORIDA						
Jacksonville	4	— 61	— 10	3	+ 6	+ 27
Miami	4	— 48	+ 0	3	+ 10	+ 4
Orlando	3	— 44	— 1			
Tampa	5	— 54	+ 6	3	+ 8	— 3
GEORGIA						
Atlanta	6	— 57	+ 5	5	+ 12	+ 8
Augusta	4	— 65	— 5	3	+ 10	+ 15
Columbus	3	— 60	+ 1			
Macon	6	— 60	+ 1	4	+ 12	+ 3
Rome	4	— 67	— 9			
Savannah	6	— 65	— 1	4	+ 15	— 8
LOUISIANA						
Baton Rouge	4	— 62	— 6	4	+ 4	+ 5
New Orleans	6	— 54	— 2	4	+ 6	+ 0
MISSISSIPPI						
Jackson	4	— 57	— 0	4	+ 2	— 1
Meridian	3	— 63	— 8			
TENNESSEE						
Bristol	3	— 68	— 9	3	+ 5	— 4
Chattanooga	4	— 62	+ 4	3	+ 6	+ 2
Knoxville	4	— 61	— 8			
Nashville	6	— 64	— 5	5	— 0	— 3
OTHER CITIES*	22	— 51	+ 3	22	— 3	— 10
DISTRICT	113	— 57	— 1	76	+ 5	— 1

* When fewer than three stories report in a given city, the sales or stocks are grouped together under "other cities."

National Business Conditions

INDUSTRIAL output increased somewhat further in January but was reduced by work stoppages in the early part of February. Construction activity was maintained at very high levels for this time of year. Personal incomes were supplemented by large payments of insurance dividends to veterans. Value of department store sales was close to last year's level and sales of automobiles were considerably larger. Prices in general remained stable.

Industrial Production

The Board's seasonally adjusted index of industrial production rose 3 points in January to 183 percent of the 1935-39 average — the highest level since March 1949. In February, industrial output has apparently declined about 5 points, largely as a result of work stoppages in the coal and automobile industries.

Production of durable goods increased 3 percent in January reflecting a large expansion in output of automobiles, and smaller gains in nonferrous metals and iron and steel. Following model changeovers, automobile production by mid-January regained the record rate of last fall. Beginning January 25, however, auto assembly operations were reduced about one-fifth by a labor dispute at the plants of a major producer. Output at steel mills increased to 95 percent of capacity in mid-January but subsequently decreased as a result of coal shortages. For the month of February ingot production was scheduled at about 89 percent of capacity, but during the week beginning February 27 it dropped sharply to 74 percent. Lumber production declined in January from the exceptionally high December level.

Output of nondurable goods in January was maintained at earlier high levels. There were small increases in cotton consumption, rayon deliveries, paper and paperboard production, and chemicals output. Production of most other nondurable goods showed small declines or little change from the level of the preceding month.

Minerals production showed a slight decline in January and in February was sharply curtailed further, as a result of work stoppages at coal mines. Output of petroleum showed little change, but metals production increased.

Employment

Employment in nonagricultural establishments, seasonally adjusted, was little changed in January as a sharp drop in employment at coal mines was more than offset by increases in construction and in plants manufacturing durable goods. Employment in most other lines showed little change. Unemployment rose to 4.5 million persons in January, up 1.8 million from January 1949.

Construction

Value of construction contract awards declined seasonally in January but was more than one-half larger than a year earlier. The number of new residential units started in January was estimated by the Bureau of Labor Statistics to be 80,000 as compared with 79,000 units in December and 50,000 in January 1949.

Distribution

Value of department store sales showed somewhat more than the usual seasonal decline in January and the Board's adjusted index was at 282 percent of the 1935-39 average, compared with 293 in December and 276 in November. Sales during the three weeks ending February 18 were maintained at the same level as in the corresponding period last year. Sales of apparel at department stores remained below year-ago levels, but sales of most durable goods were in greater volume. Sales of new automobiles were exceptionally large for this season of the year. The payment of insurance dividends to veterans beginning the middle of January is providing an important supplement to personal income at this time, tending to increase retail sales.

Shipments of railroad revenue freight rose somewhat in January, after allowance for seasonal changes, as increased loadings of most manufactured goods and ore more than offset declines in grain and forest products. Freight carloadings dropped sharply in early February, reflecting mainly the curtailment of coal and coke production.

Commodity Prices

The general wholesale price index rose somewhat from mid-January to the third week of February, reflecting largely increases in prices of cotton, hogs, and pork. These changes resulted in part from seasonal reductions in supplies. Prices of lumber and some other building materials also were advanced in this period. On the other hand, prices of some textile and chemical products and automobiles were reduced.

The average level of consumer prices declined further by .4 percent from December to January owing to small decreases in retail prices of foods and most other groups of goods and services, except fuels and rent which continued to increase.

Bank Credit

During January and the first half of February, holdings of Government securities at member banks in leading cities and Federal Reserve Banks combined declined by about 1.5 billion dollars, indicating substantial purchases by nonbank investors. Federal Reserve Banks sold large amounts of Treasury bills and a substantial volume of bonds in response to a strong market demand, but purchased certificates and notes. Reporting member banks purchased bonds, while reducing their holdings of shorter-term securities.

Bank holdings of corporate and municipal securities increased further in January and February, and real estate loans expanded moderately. Business loans did not show the usual seasonal decline. Adjusted demand deposits at reporting banks declined substantially, but Treasury deposits increased.

Member bank reserves showed little net change from late December through the first three weeks of February. Decreases in money in circulation and in Treasury deposits supplied reserves, which were largely absorbed by the decline in Federal Reserve holdings of Government securities.

THE BOARD OF GOVERNORS

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